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CHAPTER 7 TM-11-662
REVIEW QUESTIONS

- a. The voltage amplifier produces a large voltage with a small current at its output. The power amplifier produces a large current with a small voltage.
- b. A coupling network, is the components used to feed the output of one amplifier to another.
- c. The tube constants, μ , g_m , r_p . The operating D.C. voltages, E_{bb} , E_{cc} . The input grid signal e_g and the load R_L .
- d. The circuit of an R.C. coupled amplifier consist of R_L . The coupling capacitor and the grid resistor of the next stage.
- e. To prevent the high D.C. potential from passing to the grid of the next stage.
- f. Low reactance to A.C. High reactance to D.C.
- g. A graphic designation of the gain of an amplifier over a wide range of frequencies.
- h. $-u_{eg}$ represents the output of the amplifier.
- i. At the low frequencies the reactance of the C_c is fairly high increasing the voltage drop across the capacitor. At the high frequencies the total capacitance (interelectrode and wiring) decreases the reactance drops and more of the output voltage is bypassed to ground.
- j. $A_v = \frac{\mu R_L}{R_L + r_p}$
- k. The coil impedance is very high at the signal frequency. This results in a very high output voltage also the coil has a very low D.C. resistance, therefore only a small D.C. voltage is dropped. This permits a higher voltage at the plate or the use of lower value of D.C plate supply.
- l. In the low frequency range the reactance of the primary drops, resulting in a drop of the output voltage. In the high frequency range the reactance of the distributed capacitance also drops, decreasing the output voltage
- m. By its turns ratio.
- n. The R.C. coupled.
- o. The transformer has the advantage of a higher gain, also lower value of D.C. plate voltage supply can be used. Another is that the secondary can be centertapped to be used with push-pull. The transformer has the disadvantage of high cost and its heavy and bulky.
- p. By directly feeding the signal from the plate to the grid of the next stage
- q. Because it doesn't have any reactive elements.
- r. A decibel is a unit used to express a logarithmic ratio of gain. The formula for power is $10 \log P_2/P_1$
- s. It indicates that the power amplifier delivers a power level of 17 db above the reference point of .001 watts.
- t. Amplitude, frequency, phase and harmonic distortion.
- u. Regeneration is obtain when the feedback signal aids the input signal, degeneration is when it opposes it.
- v. Regenerative feedback is in phase. Degenerative is out of phase.

